

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-33. (Cancelled).

34. (Currently Amended) A method comprising:
receiving digital program data in a scrambled format by a descrambler integrated circuit;
sending a request for the encrypted control data to a headend, the request being sent over
an out-of-band channel;

receiving control data in an encrypted format by the descrambler integrated circuit;
decrypting the encrypted control data entirely within the descrambler integrated circuit
using a key permanently stored in the descrambler integrated circuit; and
descrambling the scrambled digital program data in the descrambler integrated circuit
using the decrypted control data.

35. (Previously Presented) The method of claim 34, wherein the control data includes
a service key to descramble the scrambled digital program data if the digital program data
belongs to a selected group of programs each of which is capable of being descrambled by the
service key.

36. (Previously Presented) The method of claim 34, wherein prior to receiving the
scrambled digital program data, the method further comprising programming the permanent key
into a memory at manufacture of a digital device including the descrambler integrated circuit, the
key being non-modifiable.

37. (Cancelled).

38. (Cancelled).

39. (Currently Amended) A The method of claim 37 comprising:

receiving digital program data in a scrambled format by a descrambler integrated circuit;
sending a request for the encrypted control data to a headend, wherein the request is
being transmitted in accordance with a Data Over Cable Service Interface Specification
(DOCSIS) cable transmission protocol;
receiving control data in an encrypted format by the descrambler integrated circuit;
decrypting the encrypted control data entirely within the descrambler integrated circuit
using a key permanently stored in the descrambler integrated circuit; and
descrambling the scrambled digital program data in the descrambler integrated circuit
using the decrypted control data.

40. (Previously Presented) The method of claim 39, wherein the out-of-band request includes (i) an address of a digital device implemented with the descrambler integrated circuit and (ii) an identifier of a channel at which the digital program data is received.

41. (Currently Amended) ~~A~~ The method of claim 34, wherein prior to receiving the encrypted control data, the method further comprising:
receiving digital program data in a scrambled format by a descrambler integrated circuit;
encrypting the control data in a smart card using a key stored in a register circuit of the smart card, the key stored in the register circuit of the smart card being equivalent to the key permanently stored in the descrambler integrated circuit;
receiving control data in an encrypted format by the descrambler integrated circuit;
decrypting the encrypted control data entirely within the descrambler integrated circuit
using a key permanently stored in the descrambler integrated circuit; and
descrambling the scrambled digital program data in the descrambler integrated circuit
using the decrypted control data.

42. (Previously Presented) The method of claim 41, wherein prior to receiving the encrypted control data, the method further comprising receiving the encrypted control data by an interface removably coupled to the smart card, the interface being part of a digital receiver implemented with the descrambler integrated circuit.

43. (Previously Presented) The method of claim 42, wherein the interface includes an expansion slot built into the digital receiver.

44. (Previously Presented) The method of claim 34, wherein the digital program data comprises audio and visual data.

45. (Previously Presented) The method of claim 44, wherein the digital program data further comprises system information including one or more of a program name, broadcast time, and source of the digital program data.

46. (Previously Presented) The method of claim 34, wherein the digital program data comprises an entitlement management message to deliver privileges to a digital receiver implemented with the descrambler integrated circuit.

47. (Previously Presented) The method of claim 34, wherein the digital program data comprises an entitlement control message including at least one of an identifier of a channel being tuned for receipt of the scrambled digital program data, an identifier to locate the key stored in the descrambler integrated circuit, and an identifier of the digital program data being broadcast.

48. (Currently Amended) A descrambler integrated circuit adapted for implementation in a conditional access unit, comprising:

a memory to permanently store a key uniquely assigned to the descrambler integrated circuit, the memory being a one-time programmable non-volatile memory;

decryption logic coupled to the memory, the decrypt logic to decrypt the encrypted data using the key completely within the descrambler integrated circuit without accessing any information external to the decryption logic, the encrypted data being a service key in an encrypted format being valid for a prescribed period of time, the encrypted service key, when decrypted, to descramble a scrambled digital program data if the digital program data belongs to a selected group of programs each of which capable of being descrambled by the service key; and

a descrambler coupled to the decryption logic, the descrambler to descramble the incoming scrambled digital program data within the descrambler integrated circuit using data recovered by decrypting the encrypted data

wherein the descrambler integrated circuit being controlled by a processor in communications with a transmitter implemented within the conditional access unit, the transmitter to transmit a request for the service key in the encrypted format to a headend.

49. (Previously Presented) The descrambler integrated circuit of claim 48, wherein the memory is a one-time programmable register.

50. (Cancelled).

51. (Cancelled).

52. (Currently Amended) The descrambler integrated circuit of claim ~~51~~48, wherein the request for the service key is transmitted over an out-of-band channel.

53. (Currently Amended) A The descrambler integrated circuit adapted for implementation in a conditional access unit, comprising of claim 48, wherein:

a memory to permanently store a key uniquely assigned to the descrambler integrated circuit, the memory being a one-time programmable non-volatile memory, the key is stored within the memory during manufacturer, at which time, the key and a serial number associated with the conditional access unit implemented with the descrambler integrated circuit are recorded by storage external from the descrambler integrated circuit;

decryption logic coupled to the memory, the decrypt logic to decrypt the encrypted data using the key completely within the descrambler integrated circuit without accessing any information external to the decryption logic; and

a descrambler coupled to the decryption logic, the descrambler to descramble incoming scrambled digital program data within the descrambler integrated circuit using data recovered by decrypting the encrypted data.

54. (Cancelled).

55. (Cancelled).

56. (Currently Amended) An apparatus comprising:

a first interface to receive encrypted data, the encrypted data is a service key in an encrypted format being valid for a prescribed period of time, the service key, when decrypted, to descramble incoming scrambled digital program data if the digital program data belongs to a selected group of programs each of which capable of being descrambled by the service key; and
a descrambler integrated circuit in communication with the first interface, the descrambler integrated circuit comprises

a memory to permanently store a key uniquely assigned to the descrambler integrated circuit, the memory being a one-time programmable non-volatile memory,

decryption logic to decrypt the encrypted data using the key completely within the descrambler integrated circuit without accessing any information external to the decryption logic, and

a descrambler to descramble the incoming scrambled; digital content within the descrambler integrated circuit using data recovered by decrypting the encrypted data.

57. (Previously Presented) The apparatus of claim 56, wherein the first interface includes an expansion slot to receive a smart card.

58. (Previously Presented) The apparatus of claim 56, wherein the memory of the descrambler integrated circuit is a register that can be only programmed once.

59. (Currently Amended) ~~An~~ The apparatus of claim 56 further comprising:

a first interface to receive encrypted data;

a processor coupled to the first interface

an internal memory device coupled to the processor, the internal memory to store an encrypted service key being the encrypted data, the service key, when decrypted, to descramble

scrambled digital program data if the digital program data belongs to a selected group of programs each of which capable of being descrambled by the service key; and
a descrambler integrated circuit in communication with the first interface, the descrambler integrated circuit comprises

a memory to permanently store a key uniquely assigned to the descrambler integrated circuit, the memory being a one-time programmable non-volatile memory,
decryption logic to decrypt the encrypted data using the key completely within the descrambler integrated circuit without accessing any information external to the decryption logic, and
a descrambler to descramble the scrambled digital content within the descrambler integrated circuit using data recovered by decrypting the encrypted data.

60. (Cancelled).

61. (Previously Presented) The apparatus of claim 56, wherein the encrypted data is an encrypted control word.

62. (Cancelled).

63. (Currently Amended) The apparatus of claim 62-56 further comprising a transmitter to transmit a request for the service key in the encrypted format over an out-of-band channel directed to a headend.

64. (Previously Presented) The apparatus of claim 56, wherein the memory of the descrambler integrated circuit is configured to prevent the permanent key from being overwritten or from being read by a source external to the descrambler integrated circuit.

65. (Previously Presented) The apparatus of claim 56, wherein the key and a serial number of the apparatus are recorded and stored externally from the descrambler integrated circuit.

66. (Previously Presented) The apparatus of claim 56, wherein the descrambler integrated circuit is devoid of a central processing unit, software or firmware.

67. (Previously Presented) The apparatus of claim 56 is a conditional access unit.